

Two new species from the *Agrisius guttivitta* species group from Nanling Mts., Guangdong, South China (Lepidoptera, Arctiidae: Lithosiinae)

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Abstract Two new species of the *Agrisius guttivitta* species group are described from Nanling Mts. South China, which fly in different seasons: *A. vernalis* sp. nov. (May) and *A. aestivalis* sp. nov. (July–August). Although they are related species, they differ from each other mainly by male genitalia structure.

Key words Arctiidae, Lithosiinae, *Agrisius*, new species, S. China.

Introduction

The genus *Agrisius* Walker, 1855 was formerly thought to be represented by two widely distributed species. They have been distinguished by wing pattern only: *A. fuliginosus* Moore, 1872 has no spots in the apical half of the discal cell of the forewings, or along the costa in front of the cell and beyond it; the type species *A. guttivitta* Walker, 1855 has a dark streak in the apical half of the discal cell of the forewings and diffuse spots on the costa in front of the cell and beyond it. Fang (1991) described a further sibling species of *A. guttivitta* Wlk. from Yunnan, China: *A. similis* Fang, 1991. This species was later collected in North Vietnam (3 ♀, Sa Pa, 20. VI. 1999, native collector leg.). After dissecting males of *A. "guttivitta"* collected in the Nanling Mts. in northern Guangdong, we have found two species differing significantly from each other as well as from *A. similis* Fang and the nominotypical *A. guttivitta* Wlk. from the Himalayas. Descriptions of these new species are given below.

Agrisius vernalis Dubatolov, Kishida & Wang, sp. nov. (Fig. 1)

Material. Holotype – ♂, China, Guangdong, Shaoguan, Nanling, 900–1 400 m, 16–20. V. 2009, Y. Kishida and Wang M. leg. Preserved in South China Agricultural University, Guangdong. Paratypes: 1 ♀, the same locality and data as for the holotype.

Description. Forewing length 21 mm. Moths have the wing pattern typical to the *A. guttivitta* species group. Forewings marked by gray scales; hindwings brownish grey with brown veins.

Male genitalia (Fig. 5). Uncus consists of two parallel branches, each covered with small spines on dorsal surface near apex. Valvae membranous, broad, oval, apically

covered with bunches of long hairs. Sacculus sclerotized, bifurcated, with broad branches divergent at bases. Dorsal branch of sacculus strongly curved ventrally at 1/3 from apex and proximally at apex. Ventral branch slightly curved dorsally at apex, covered with long hairs; and not projecting beyond dorsal branch. Sacculus base without processes. Juxta transverse, short and broad. Saccus narrowly triangular. Aedeagus stout, apically with a long sclerotized process on the ventral surface, which bears a small spine slightly distally from its center. Vesica narrow, C-shaped, apically with a spine-like cornutus on an elongate base.

Agrisius aestivalis Dubatolov, Kishida & Wang, sp. nov. (Fig. 2)

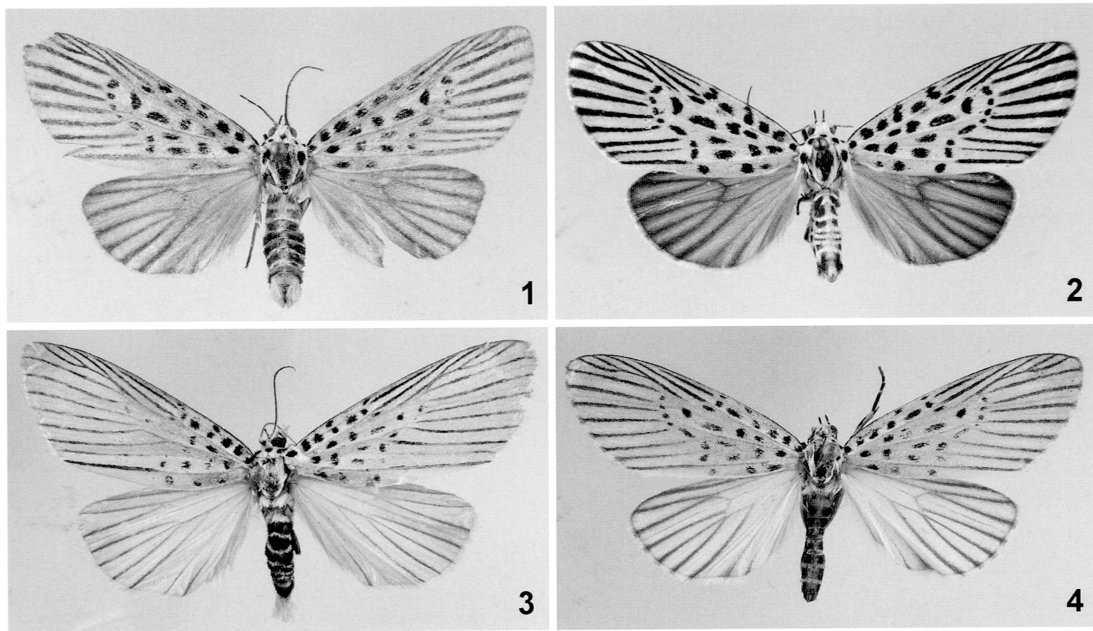
Agrisius guttivitta, Daniel, 1952; *Bonn. Zool. Beitr.* **3** (1–2): Taf. II, fig. 53, **3** (3–4): 316 (Chekiang [Zhejiang], Ost-Tien-Mu-Shan, 1500 m, 21. VIII. [19]31).

Agrisius guttivitta: Kishida, 2011; Moths of Guangdong Nanling National Nature Reserve: 217, pl. 25, fig. 4.

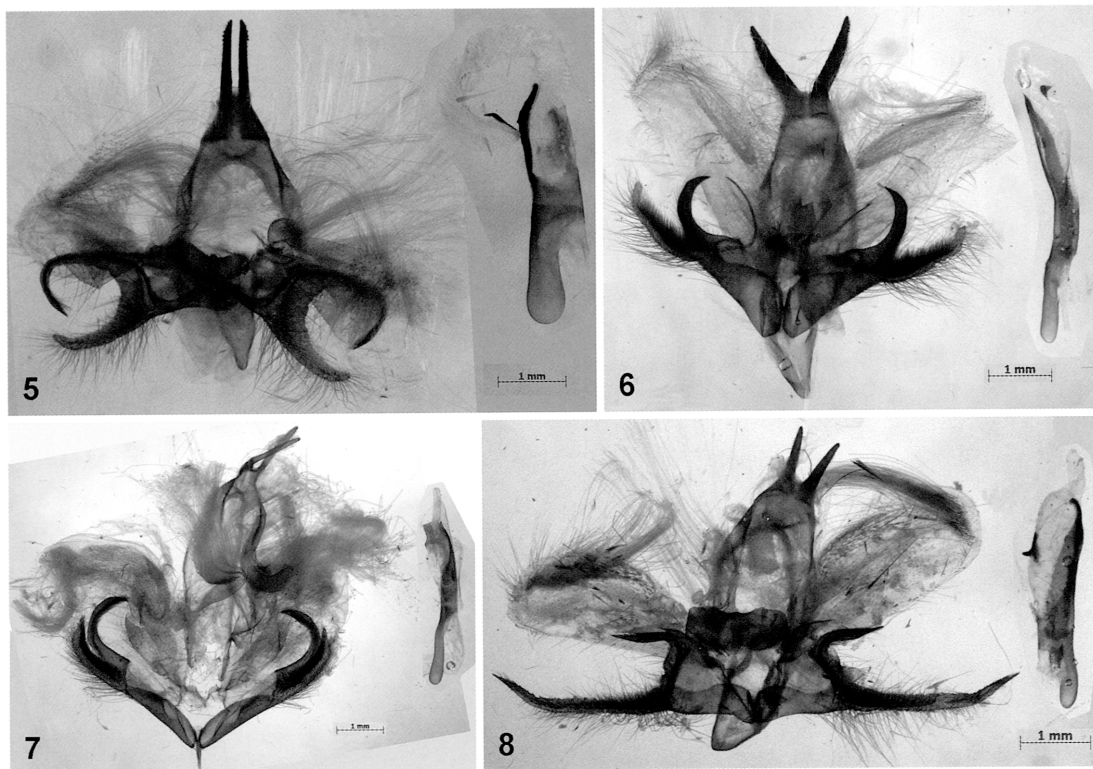
Material. Holotype – ♂, China, Guangdong, Shaoguan, Nanling, 1,000–1 400 m, 9–15. vii. 2010, Y. Kishida leg. Preserved in South China Agricultural University, Guangdong. Paratypes: 3 ♀, the same locality and data as in the holotype; 1 ♂, 4 ♀, the same locality, 700–1100 m, 5–8. viii. 2005, Y. Kishida leg.

Description. Forewing length 19–21 mm in males, 18–20.5 in females. Moths have the wing pattern typical of the *A. guttivitta* species group. Hindwings brownish grey with brown veins.

Male genitalia (Fig. 6). Uncus consists of two branches diverging in a V-shape, without spines at apex. Valvae membranous, broad, oval, apically covered with clusters of long hairs. Sacculus sclerotized, bifurcate, with broad branches converging at an acute angle at base. Dorsal



Figs 1–4. *Agrisius* moths. 1: *A. vernalis* sp. nov., holotype, China, Guangdong, Nanling. 2: *A. aestivalis* sp. nov., holotype, China, Guangdong, Nanling. 3: *A. similis* Fang, China, East Yunnan, Baiyanzishan, Yuanyang. 4: *A. guttivitta* Wlk., Nepal, Godavari.



Figs 5–8. *Agrisius* male genitalia. 5: *A. vernalis* sp. nov., holotype, China, Guangdong, Nanling. 6: *A. aestivalis* sp. nov., holotype, China, Guangdong, Nanling. 7: *A. similis* Fang, China, East Yunnan, Baiyanzishan, Yuanyang. 8: *A. guttivitta* Wlk., Nepal, Godavari.

branch of sacculus curved upwards. Ventral branch projecting beyond dorsal branch, slightly curved dorsally at apex, densely covered with short hairs on dorsal surface, but less densely and with long hairs on ventral surface. Sacculus base with a long and very narrow process. Juxta transverse, short and broad. Saccus narrowly triangular. Aedeagus long, narrow. Vesica very short, with a cone-like cornutus.

Discussion

Although all four known species of the *A. guttivitta* species group are very similar in forewing pattern, they have small differences in the wing coloration: *A. guttivitta* Moore (Fig. 4) and *A. similis* Fang (Fig. 3) have the hind wings mostly pale, without a grey suffusion between the brownish veins. Both species from Nanling have much darker hindwings. The curved postdiscal row of small spots on the forewings is well visible, and continues from the wing dorsal margin up to the discal vein in *A. guttivitta* Wlk., while in *A. similis* Fang it is strongly reduced. On the other hand, the two new species from Nanling with darker hindwings look more similar to each other and differ significantly in the male genitalia only.

In the male genitalia structure, the four known species differs significantly: *A. guttivitta* Wlk. (Fig. 8) from the Himalayas has a very long ventral branch of the sacculus, and a dorsal branch three times shorter; these branches are broadly divergent at bases (a characteristic in common with *A. vernalis* sp. nov.). *A. similis* Fang (Fig. 7) has the two branches of the sacculus closely convergent at bases, as in *A. aestivalis* sp. nov. However, these branches are parallel in *A. similis* Fang, and the ventral branch is no longer than the distal part of the dorsal branch beyond the bend, while in *A. aestivalis* sp. nov. these branches diverge, and the ventral branch is mostly straight and longer than the distal part of the dorsal branch; the presence of a long and very narrow process is an autapomorphy of the latter species.

The two new species from Nanling have different flight seasons: *A. vernalis* sp. nov. in May and *A. aestivalis* sp.

nov. in July-August.

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摘要

中国広東省南嶺からのゴマフオオホソバ属の2新種 (鱗翅目, ヒトリガ科, コケガ亜科) (V. V. Dubatolov・岸田泰則・王 敏)

中国広東省南嶺からヒトリガ科コケガ亜科ゴマフオオホソバ属に含まれる *Agrisius vernalis* と *A. aestivalis* の2新種を記載した。この2新種は、インドやネパールなどに産する *A. guttivitta* や中国雲南省、ベトナムなどに産する *A. similis* に斑紋は酷似するが、♂交尾器の違いによって区別できる。*A. aestivalis* は、Kishida (2011) が *A. guttivitta* と同定して南嶺から記録した種である。

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